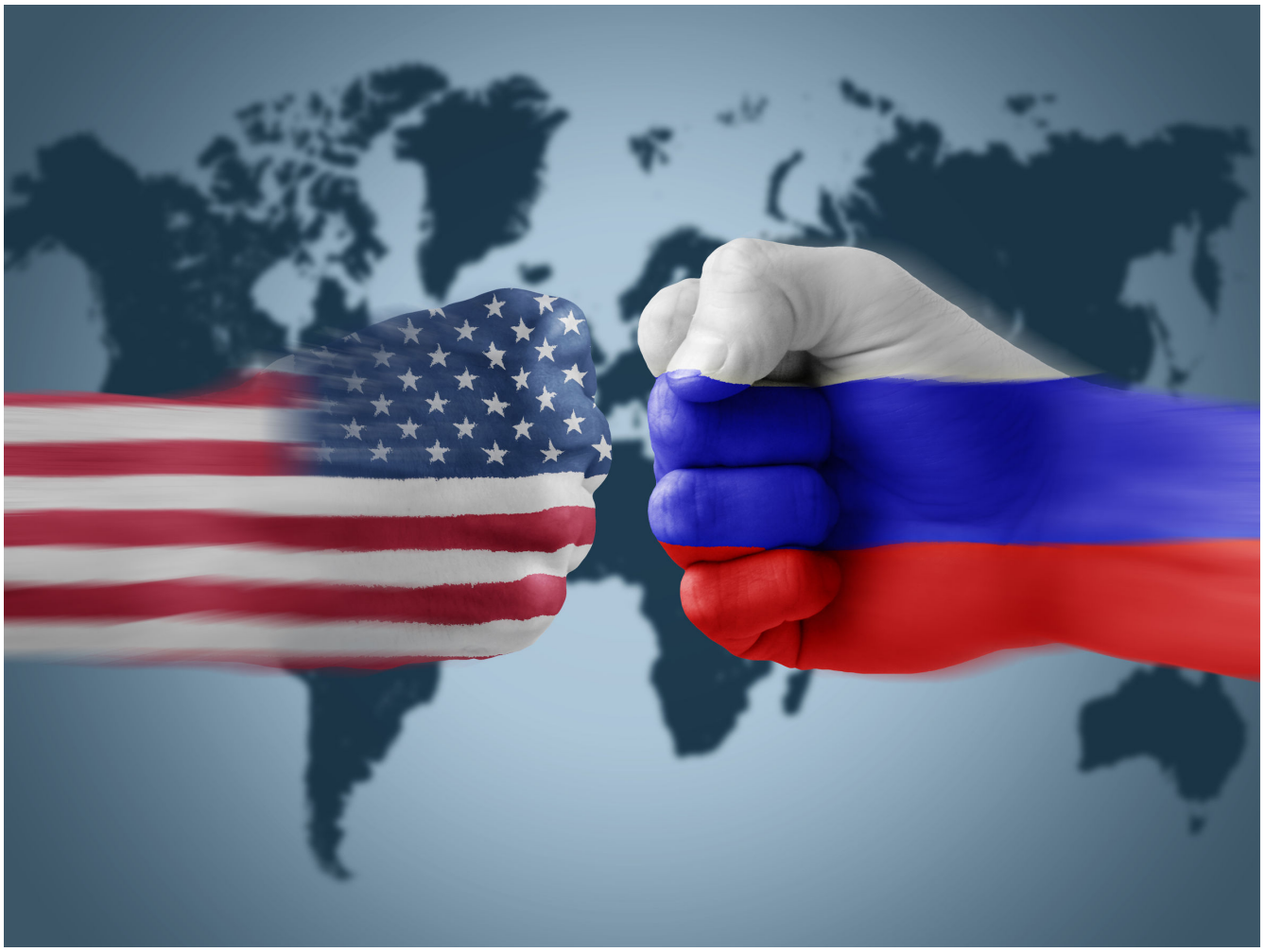
RESEARCH ARTICLE

The Cold War Economy

Opportunity Costs, Ideology, and the Politics of Crisis

By **ROBERT HIGGS** July 1, 1994



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> *"Our government has kept us in a perpetual state of fear—kept us in a continuous stampede of patriotic fervor—with the cry of grave national emergency. Always there has been some terrible evil at home or some monstrous foreign power that was going to gobble us up if we did not blindly rally behind it by furnishing the exorbitant funds demanded. Yet, in retrospect, these disasters seem never to have happened, seem never to have been quite real."*
> —**General Douglas MacArthur**[1]

For four decades the government of the United States waged the Cold War. Doing so brought about massive changes in the allocation of resources, with effects on many dimensions of the nation's economic performance. Despite all that has been written by economists, historians, political scientists, and others about the Cold War economy, economic historians have given little attention to it as such. Most textbooks devote scant if any space to discussing it.[2] Now that it can be viewed as a distinct phase of U.S. economic history, an analytical survey is in order.

In the first part of the paper I present such a survey in the form of a statistical anatomy accompanied by a brief narrative of related political and military events. I deal with the magnitudes of defense spending, both absolutely and relative to national product, and the trends and cycles of those magnitudes. Next, I examine opportunity costs, identifying how changes in the military share of national product were related to changes in the private share or the government nonmilitary share, both from year to year and over

the course of distinct periods of military buildup and cutback. Finally, I consider how the Cold War economy's performance looks when we reconsider the measurement of national product along lines that I, among others, consider more defensible than the orthodox ones.

In the second part of the paper I turn more explicitly to issues of political economy. The Cold War economy derived from resource allocation by government. But in the context of American political institutions, the government's actions cannot be fully understood apart from the public's preferences and the politics that connected the rulers and the ruled. Post-World War II American military affairs—preparation for as well as actual involvement in war—gave rise to characteristic political processes. In analyzing those processes I focus on information and ideology. Who knew what, and who believed what, about national defense requirements and capabilities? How was the existing information used in the political processes that determined the broad societal allocation of resources? How stable were public preferences, and what made them change as they did? How were conflicts between the national security elite and the public resolved?

A STATISTICAL ANATOMY OF THE COLD WAR ECONOMY

Terms of Reference

To inquire into how the costs of Cold War military activities were distributed between the private sector and the government nonmilitary sector, I extend the familiar guns-versus-butter metaphor slightly, dividing the gross national product into three exhaustive classes: government military purchases, denoted by G-M; all government—federal, state, and local—nonmilitary purchases, denoted by G-NM; and all private purchases, whether for consumption or investment (or net exports), denoted by P.[3] This categorization permits us to view the societal opportunity costs of military purchases very broadly. The military purchases include only newly produced final goods and services as designated under the "national defense" heading in the national income and product accounts. Hence, at the beginning of the analysis I am examining the division of the entire national flow of output as conventionally measured.

To provide empirical terms of reference for the analysis, I consider periods of military mobilization to be defined by a rapid uninterrupted multiyear increase of real military outlays, and periods of demobilization by a substantial uninterrupted multiyear decrease of real military outlays. In the United States after 1948 three mobilizations occurred, during 1950-53, 1965-68, and 1978-87, each followed by a demobilization.

An increase of the share of G-M in GNP can occur at the expense of either the share of P or the share of G-NM or of both. For expositional convenience let us employ the usual terms, calling G-M "guns" and P "butter." G-NM will be called "roads." A distinction may be drawn between "butter-sacrificing" mobilizations, when the P share declines, and "roads-sacrificing" mobilizations, when the G-NM share declines. Demobilizations may be viewed in parallel terms as "butter-enhancing" or "roads-enhancing."

Military Spending: Magnitudes and Shares

World War II cast an enormous shadow over the years that followed in the United States. In addition to the immense economic consequences, the war's institutional and Constitutional legacies loomed very large.[4] The ideological effects were tremendous. Benjamin Page and Robert Shapiro, in their massive survey of public opinion data, describe World War II as "the most pervasive single influence on public opinion" in the entire period since the mid-1930s. Among other things, it "transformed American public opinion concerning virtually all aspects of foreign affairs."[5] In the dominant view that emerged from the war, "isolationism" and "appeasement" were completely discredited. Within the federal government the president gained power and discretion, especially in foreign affairs—people would later speak of an "imperial presidency." In these respects important groundwork was laid for a greatly expanded American role in world affairs. But in the latter half of 1945 and throughout 1946 the rapid demobilization of the awesome wartime military machine raised doubts as to whether the United States would possess the means to achieve its newly embraced global goals.

Culminating the demobilization, real military spending hit its postwar low in calendar year 1947 at $10 billion in current dollars, equivalent to about $45 billion in 1982 dollars, or 4.3 percent of GNP. (Henceforth unless otherwise indicated, all dollar amounts are expressed in 1982 purchasing power.)[6] But in 1947 relations with the Soviet Union were deteriorating, especially in the eyes of the President and officials at the Department of State and the newly created Department of Defense.[7] Already Winston Churchill had warned that an iron curtain was descending between Soviet-controlled Europe and the West. For the people on Main Street, however, other concerns had priority. "Though the polls showed growing awareness of Soviet aggressiveness, most Americans were still not ready to undertake the dangerous, expensive job of opposing Russia. . . . The Republicans had gained control of Congress in November [1946] by promising a return to normalcy, not an assumption of Britain's empire."[8] To convince the public, and thereby Congress, of the need for additional defense spending to implement the proclaimed Truman Doctrine of containing communist expansion around the world, the administration needed a more visible crisis. The confrontations over Greece and Turkey, which had flared up in 1947, could not carry the full burden of justification required.

Events came to the administration's rescue when the communists took over the Czechoslovakian government early in 1948. Also, Lieutenant General Lucius Clay, military governor of the U.S. Zone in Germany, helped to create a war scare by sending a telegram, which was subsequently publicized, warning that war between the United States and the Soviet Union might occur "with dramatic suddenness." In March President Truman called for a supplemental defense approporiation of more than $3 billion (current dollars), which Congress quickly approved.[9] Hoping for a rally-'round-the-flag response from the citizenry as he sought reelection, Truman gave a major speech that stressed the danger of war with the Soviets. He denounced their "ruthless action" and their "clear design" to dominate Europe.[10]

With these events the Cold War had definitely begun. Congress approved defense appropriations for fiscal year 1949 about 20 percent higher than those for fiscal year 1948.[11] The Berlin crisis than began in mid-1948, the communist conquest of China, the Soviet nuclear test, and the formation of NATO in 1949, and the outbreak of the Korean War in mid-1950 ensured that the superpower rivalry and confrontation that came to be known as the Cold War—a state of chronic national emergency and sustained military readiness without precedent in American history—would remain the dominant reality of U.S. foreign and defense affairs for the next four decades, ending only with the breakup of the East Bloc and then the Soviet Union itself in 1990 and 1991.

Notwithstanding the sharp jump in real military purchases in calendar year 1949, the first rapid multiyear mobilization of the Cold War era did not begin until after the outbreak of the Korean War (Figure 1). Previously administration officials had encountered stiff resistance from Congress to their pleas for a substantial buildup along the lines laid out in NSC-68, a landmark document of April 1950. The authors of this internal government report took a Manichaean view of America's rivalry with the Soviet Union, espoused a permanent role for the United States as world policeman, and envisioned U.S. military expenditures amounting to perhaps 20 percent of GNP.[12] But congressional acceptance of the recommended measures seemed highly unlikely in the absence of a crisis. In 1950 "the fear that [the North Korean] invasion was just the first step in a broad offensive by the Soviets proved highly useful when it came to persuading Congress to increase the defense budget." As Secretary of State Dean Acheson said afterwards, "Korea saved us."[13] The buildup reached its peak in 1953, when the stalemated belligerents in Korea agreed to a truce.

The ensuing demobilization lasted just two years, leaving annual defense outlays during the next decade nearly three times higher than they had been in the late 1940s (Figure 1). During the period 1947-1950 real annual military spending never exceeded $60 billion; after 1952 it never fell below $143 billion and usually was substantially higher (the average for 1956-1965 was $168). Samuel Huntington, a leading student of U.S. defense policy, speculated that "without the war, the increase probably would have been about the size of that of 1948-1949," that is, 20 percent instead of nearly 200 percent.[14]

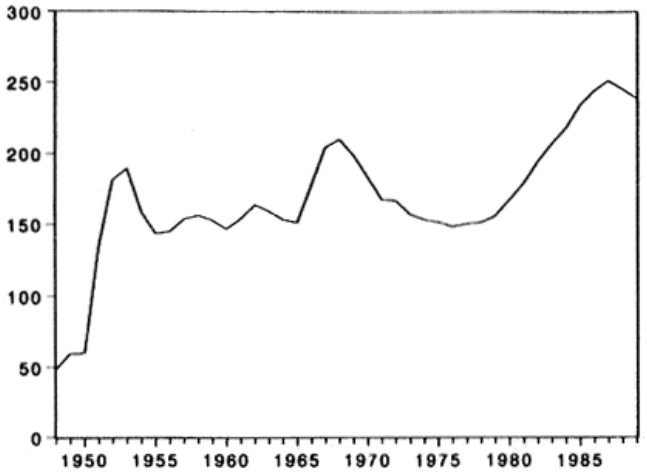

FIG. 1. Real military outlays (billions of 1982 dollars), 1948–1989.

During the period 1955-1965 U.S. military policy underwent substantial recasting. First the Eisenhower administration's New Look put major emphasis on massive nuclear retaliation by the Strategic Air Command's long-range bombers and intercontinental ballistic missiles; then the Kennedy administration's plan tilted toward flexible nuclear response, counterinsurgency, and forces tailored to limited wars. But these shifts had only minor impacts on overall defense spending, which fluctuated within a range of $143-163 billion. A much-vaunted buildup after JFK took office raised spending by 11 percent between 1960 and 1962, but the decline during the next three years brought the real spending of 1965 below the amount spent in 1957. Because the Kennedy buildup was so brief, so small, and so transient, I do not regard it as belonging in the same category with the three mobilizations identified above.

After 1965 the Vietnam War buildup carried real defense purchases to a mobilization peak in 1968, up by more than one-third. The ensuing demobilization is harder to date with certainty. I put its completion at 1971, when the military share of GNP had fallen below the premobilization share of 1965 (Figure 2). After holding its own in 1972, however, the amount of real military spending continued downward until it hit bottom in 1976. (The G-M share of GNP hit bottom in 1978.) Despite this resumption of the decline that first began after 1968, it would be unwarranted to describe the decline between 1972 and 1976 as part of the Vietnam War demobilization as such.[15] Although this latter phase of decline certainly reflected, in part, disillusionments and convictions engendered by the Vietnam experience, it applied more to the military establishment in general, especially the procurement accounts, than to forces in or supporting military action in Southeast Asia.[16] In January 1973, with only 30,000 U.S. military personnel remaining in Vietnam, the Nixon administration terminated the draft, and the Paris Peace Agreement provided for the withdrawal of all remaining U.S. forces from Vietnam.[17] The bulk of the military retrenchment during 1972-1976 reflected public and congressional revulsion against militarism and the Cold War, as evidenced by such events as the passage of the War Powers Resolution in 1973 and the National Emergencies Act in 1976, rather than savings associated with the reduction and eventual cessation of U.S. engagement in the Vietnam War.

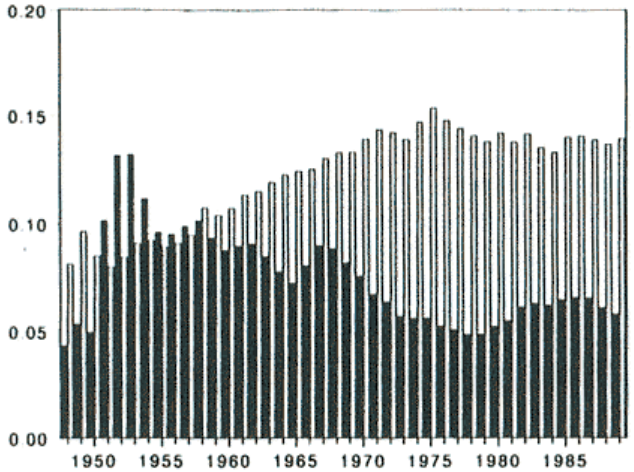

FIG. 2. Government military (dark bars) and nonmilitary (light bars) shares of GNP, 1948–1989.

Finally, after 1978 the Carter-Reagan buildup is obvious in the spending data (Figure 1). Between 1978 and 1980, real military outlays increased by $15.7 billion, or 10.4 percent; between 1980 and 1987, by $84.4 billion, or 50.7 percent. For the entire nine-year buildup, annual outlays went up by $100.1 billion, or 66.4 percent. (Recall that these figures are expressed in 1982 dollars.) Not being associated with a major shooting war, this vast military spending surge had no precedent in American history.

Before proceeding, one should note two important points. First, I have computed the data on real military spending by deflating nominal-dollar defense purchases by the GNP deflator. (All data are for calendar, not fiscal, years.) While this procedure does not permit one to claim that the resulting real spending series accurately portrays the growth of real defense "quantity"—whatever that might mean—it does permit one to approximate the opportunity cost of military spending in terms of real nonmilitary output forgone.[18] Second, the military spending being analyzed here is for purchasing newly produced goods and services, including foreign military assistance. This component of the national income and product accounts is not the same as budgetary outlays of the Department of Defense, which include substantial sums for transfer payments such as military retirement pay and purchases of land. Also, some defense purchases originate in other federal departments, for example, the Energy Department (previously the Atomic Energy Commission), which purchases goods and services to produce nuclear reactors and warheads for the armed forces.[19]

For the entire Cold War period, 1948-1989, real military purchases cumulated to a total of $7,051 billion—equivalent to nearly $10 trillion in 1992 dollars—averaging $168 billion per year. There was, obviously, substantial fluctuation: the standard deviation was $44.6 billion. The trend was slightly upward. A trend equation fitted to the data reveals a tendency for defense purchases to increase by $2.6 billion per year on the average.

From 1948 to 1989, real GNP increased at an average rate of 3.1 percent per year. (This rate and others given in this paragraph were computed from a linear regression of the logarithm of the variable on time.) Average growth rates of the component shares of real GNP were as follows: real private spending, 3.0 per year; real government nonmilitary spending, 4.5 percent per year; and real military spending, 1.9 percent per year. Thus, while private spending, by far the largest component of GNP, almost maintained its share of the total, the share of G-NM tended to increase while the share of G-M tended to diminish.

By focusing on the long-term trends of the shares, however, one overlooks the abrupt changes early in the period: the share of G-M jumped from 5.0 in 1950 to 13.1 percent in 1952 and 13.2 percent in 1953, after which a gradual downward trend is clear (Figure 2); the private share, in contrast, fell from 86.5 percent in 1950 to 77.7 percent in 1953, recovered to 81.5 in 1955 (a private share never again reached), then leveled off for the long term at about 80 percent. In short, one finds that the composition of real output, as conventionally measured, underwent a permanent once-for-all shift in the early 1950s, when the private share lost about six percentage points at the expense of, first, an abrupt increase of the government military share, and then a gradual long-term increase of the government (federal, state, and local) nonmilitary share, which trended upward until the mid-1970s,

then leveled off at about 14 percent (Figure 2).

Table 1 shows that one's description of GNP shares during the Cold War in some respects depends heavily on whether or not one includes the years 1948-1950 in the long period. With those three years excluded, the private share shows no long-term tendency to decline, and its standard deviation is much smaller; the military share falls significantly faster, with the annual figures deviating much less from the trend line. For description of long-term changes of the G-NM share, in contrast, it matters little whether one includes or excludes the years 1948-1950. As a stylized description of the Cold War shares, one comes close to the truth as follows: P share = 80 percent; G-M share = 7.6 percent; G-NM share = 12.4 percent.

TABLE 1

GNP Share Characteristics for Two Long Periods

	1948-1989	1951-1989
Private share		
Mean	0.803	0.798
Standard deviation	0.020	0.010
Trend change per decade	-0.006	0.001
R^2 of trend equation	0.121	0.007
Government military share		
Mean	0.075	0.077
Standard deviation	0.022	0.022
Trend change per decade	-0.010	-0.016
R^2 of trend equation	0.332	0.733
Government nonmilitary share		
Mean	0.122	0.125
Standard deviation	0.022	0.021
Trend change per decade	0.016	0.016
R^2 of trend equation	0.780	0.736

If one begins in 1948, the long-term tendency was for the G-NM share to gain at the expense of both the private share and the military share, with the military share absorbing almost two-thirds of the shift. (Because the three shares exhaust the entire GNP, their trend rates of change must add to zero, which—except for rounding error—they do in Table 1.) Excluding the years 1948-1950 from the long term, one finds that the long-term tendency was for the G-NM share to gain exclusively at the expense of the military share, as the private share remained approximately constant over the long period 1951-1989. Thus, if the United States during the Cold War was simultaneously a warfare state and a welfare state, it is clear that the welfare part expanded much more robustly than the warfare part after the initial military surge of the early 1950s.[20]

Given the overarching trends, one may proceed to ask whether increases of the G-M share during military mobilizations occurred at the expense of G-NM or P shares. The answer is clear. There was no systematic tendency at all for the G-NM share to fall when the G-M share rose during mobilizations. In fact, during military buildups the government nonmilitary share of GNP was more likely to rise than to fall. The G-NM share was higher in 1953 than it had been in 1950, and higher in 1968 than it had been

in 1965. During the Carter-Reagan buildup the G-NM share fluctuated in a narrow band, sometimes rising and sometimes falling, but the share at the end (13.88 percent in 1987) was nearly the same as it had been before the buildup began (14.06 percent in 1978). A regression of the annual changes of the G-NM share on the annual changes of the G-M share has a slope coefficient that does not differ significantly from zero (t = 0.355) and an R^2 of just 0.003, which shows that the annual changes of the two variables bore no contemporaneous linear relationship to one another.

The behavior of the private share was quite different. Changes in the G-M and P shares were almost exactly offsetting. A trade-off equation fitted to the annual changes during 1948-1989 has a tight fit (R^2 = 0.814) and shows that the implicit cost of a one-percentage-point increase in the military share was a reduction of one percentage point in the private share: the regression slope coefficient is -1.004 with a standard error of 0.077; hence one cannot reject the hypothesis that the slope equals one at any customary level of Type I error. (Deletion of the years 1948-1950 from the data set has no effect on this conclusion.) Figure 3 plainly shows the two offsetting changes to be deviations from a horizontal line representing a zero sum of the two changes. In short, during the Cold War the private sector alone bore the full cost of annual increases in the military share of total output as conventionally defined.

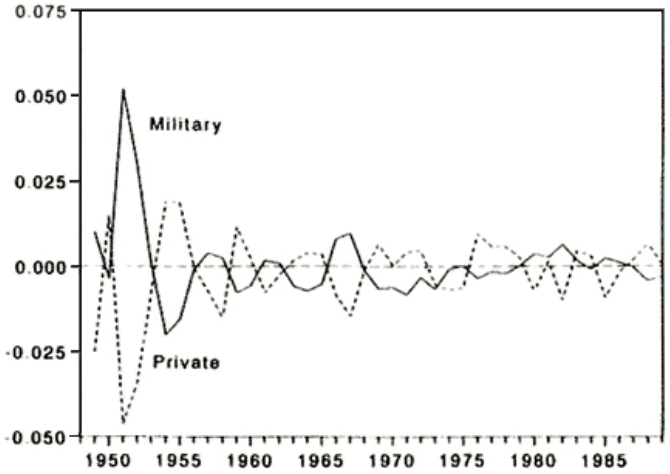

FIG. 3. Change of military and private shares of GNP, 1949–1989.

In the metaphors explained above, one may describe the buildup of 1950-1953 as completely butter-sacrificing and the demobilization of 1953-1955 as completely butter-enhancing. But because the magnitude of the military upswing greatly exceeded that of the subsequent retrenchment, over the full cycle of 1950-1955 the net change of the private share was -5.1 percentage points. The buildup of 1965-1968 was also completely butter-sacrificing. The ensuing demobilization was 50 percent butter-enhancing if considered complete in 1971, and 59 percent butter-enhancing if considered complete in 1976. Over the complete cycle of 1965-1971 the net change of the private share was -1.4 percentage points; over the period 1965-1976 it was -0.4 percentage points. The Carter-Reagan buildup of 1978-1987 was 89 percent butter-sacrificing: the private share fell by 1.5 percentage points while the military share rose by 1.7 percentage points. During the Reagan portion of the buildup alone, from 1980 to 1987, the mobilization was 76 percent butter-sacrificing, as the private share fell by one percentage point while the military share rose by 1.3 percentage points. The post-1987 demobilization has continued into the early 1990s, so its ultimate character remains to be seen.

Cold War Economy: Unconventionally Viewed

To this point my analysis has proceeded by making use of the conventional categories of the national income and product accounts. I now take a different tack. In the conventional accounting framework the government's spending for national defense enters fully into GNP. The soundness of this accounting practice can be, and often has been, questioned. The challenges apply in some cases to the accounting treatment of all government spending;[21] in other cases, to defense spending in particular.[22] Some critics would deduct all government spending from GNP, others only a portion; likewise for defense spending alone. Whether or

not one accepts the arguments of the critics, it is worthwhile to consider the grounds of the arguments and to assess how our view of the economy's performance would be changed by adopting alternative accounting conventions. Among the several bases for rejecting the usual accounting conventions, the following may be noted.

First, because the prices paid for defense goods and services generally are not—in some cases cannot be—determined within a competitive market framework, all such prices are suspect. What do they mean? Is there any reason to suppose that they approximate consumers' marginal rates of substitution or producers' marginal costs? If not, why should the actual prices paid be regarded as appropriate weights for the purpose of aggregating physically incommensurable goods and services? The prices paid for conscripted soldiers' services are only the most incontestible example of a wide class of prices that deviate from competitive equilibrium levels. For many items procured the government and the supplier compose a bilateral monopoly, and the prices reflect only the relative bargaining power of the transactors—not to speak of the supplier's political pull.

Second, even if the pricing problem be disregarded, defense purchases measure input not output. Obviously, what people value is national security, not the mere devotion of resources to the ostensible production of national security. Because no one knows the production function for national security, and because under certain conditions (e.g., arms races) more military spending may be associated with less rather than more security, one may not suppose even that the relation between spending and security is necessarily monotonic; far less may one assume what the specific form of the function might be.[23] Moreover, how one might aggregate individuals' valuations of security to arrive at a societal value for national security is probematic in theory as well as practice.

Third, defense output, even if it were measurable, ought to be regarded as an intermediate rather than a final good, and on this basis excluded from GNP. As James Tobin and William Nordhaus put it, extending an argument embraced earlier by Simon Kuznets, defense is a "necessary regrettable," not a source of final utility to anyone. If there were no external threat, all defense spending could be eliminated and no one would be the worse. To the extent that defense spending serves to preserve the social and economic framework within which nondefense production can go forward, its value is already incorporated in the market prices of civilian goods.[24]

Finally, following lines of argument familiar in public choice theory (bureaucratic behavior à la Niskanen and rent-seeking à la Tullock), one may argue that political and bureaucratic allocation of resources tends toward the dissipation of net value for all services provided by the government. Hence, at the margin the observed defense spending amounts to transfer payments rather than payments for net additions to the real national product.[25] Students of the politics of maintaining obsolete military bases and other defense boondoggles have demonstrated that at least a substantial portion of defense spending makes no genuine net contribution to national security.[26]

The preceding arguments, although not widely accepted within the mainstream economics profession, are scarcely the wild-eyed notions of crackpots. At least three Noble laureates in economic science (Kuznets, Tobin, and Buchanan) are on record as proponents of some or all of the preceding arguments, and many other respectable economists also have subscribed to them. Especially weighty is the position of Simon Kuznets in opposition to the now-standard way of treating defense spending in the national product accounts, because Kuznets was the acknowledged leader in the original development of the accounts. Except for World War II, which he treated as a unique event, Kuznets always insisted on using a "peacetime concept" of GNP.[27]

For assessing the long-run trend of real GNP during the Cold War, it matters little whether one examines conventional real GNP or real GNP*, the latter being real GNP minus all defense spending. The two series exhibit a similar upward tendency. Between 1948 and 1989, real GNP grew at an average rate of 3.10 percent per year, real GNP* at an average rate of 3.21 percent per year. (Again, growth rates are obtained from linear regressions of log output on time.) On the basis of this difference, one has little to choose, as the growth rate of orthodox total output and that of civilian output alone differed by just 0.11 percent per year.

Notwithstanding the similarities of their long-run trends, the two series moved quite differently in particular years and, on one

occasion, over the course of a conventionally demarcated business cycle. Comparing the annual percentage growth rates of real GNP and real GNP*, one finds that they differed by one percentage point or more in six years, and in several other years they differed by enough to make a substantial difference in, say, the predictive performance of a macro model fitted to them. A linear regression of the growth rate of real GNP* on the growth rate of real GNP accounts for less than 80 percent of the variance (R2 = 0.796) and has a standard error of estimate of 1.2 percentage points. So, how one defines GNP can make an important difference in one's understanding of the patterns of real output fluctuations in the postwar era. Empirical macroeconomists appear to be oblivious to this issue.

As Figure 4 shows, the differences tended to diminish with the passage of time. The early 1950s witnessed the greatest deviations between the growth rate of orthodox real GNP and that of civilian real GNP. The differences were considerably smaller from the mid-1950s to the mid-1970s, then even smaller between 1974 and 1989. To some extent, the diminution reflected the diminishing share of military spending in GNP (Figure 2 above).

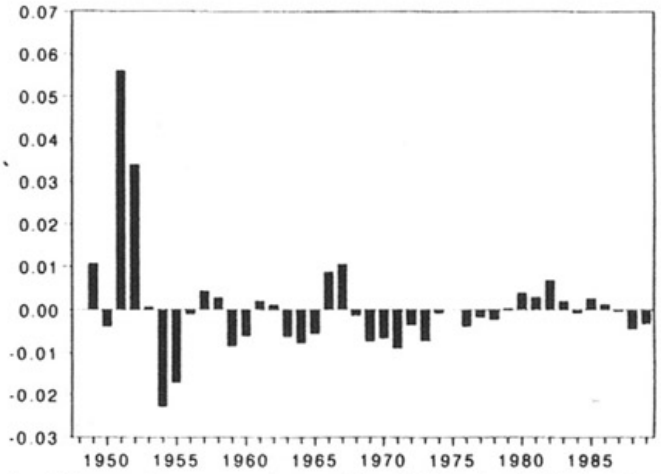

FIG. 4. Difference between growth rates of real GNP and real GNP*, 1949–1989.

For the early 1950s the choice of an output concept makes a major difference in the description of the business cycle (Figure 5). The conventional concept gives rise to a description that shows an expansion from 1950 through 1953, a mild recession in 1954, and a strong recovery in 1955. Real GNP*, in contrast, shows a much slower pace of expansion in 1951 and virtually no growth in 1952. The year 1953 looks the same for both measures, but 1954 does not. Moving from real GNP to real GNP* transforms 1954 from a mild recession to a weak expansion—a minus 1.3 percent change becomes a plus 1.0 percent change. Both series show strong recovery in 1955, with civilian growth outpacing that of GNP including the military component.

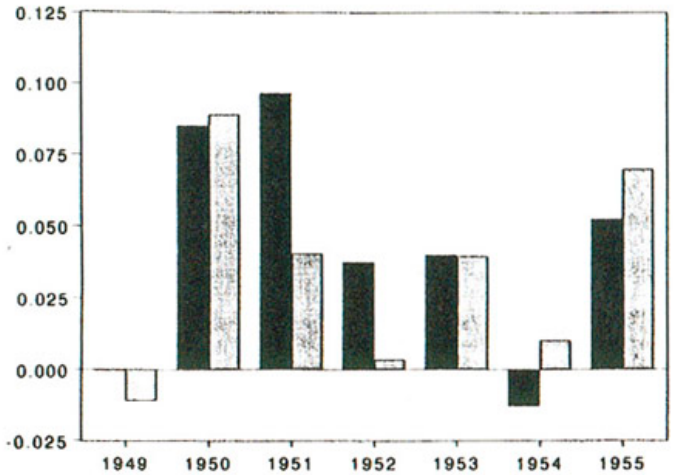

FIG. 5. Growth rates of real GNP (dark bars) and real GNP* (light bars).

One may not wish to accept GNP* as a replacement for conventional GNP.[28] But the point remains. Whether or not one wishes to exclude defense spending from the measure of total output, one must recognize that some years look good or bad merely because of variations in defense spending—a type of spending with a very tenuous relation to the well-being of consumers, investors, and the beneficiaries of governmentally purchased civilian goods and services. The year 1951 was far better for guns than it was for butter or roads. The year 1952 saw only minuscule growth of road output and actual decline of butter output; the year 1954, a bad one for guns, brought slight improvements in the rates of output of both roads and butter. What we call these differences matters little, so long as we are clear. But appreciating the existence of the differences is important for understanding and evaluating the actual performance of the economy during the Cold War.

THE POLITICAL ECONOMY OF THE COLD WAR

The foregoing evidence and analysis raise a variety of questions about the political economy of the Cold War, only a few of which can be considered here. I shall focus on issues related to ideology, information, and the conflict between governing elites and the public.

Consider first the profile of resource allocation to the military during the Cold War. One might ask: (1) What accounts for the unprecedentedly enormous base spending level, that is, the level when the nation was not involved in shooting war? (2) What accounts for the deviations from that base, that is, for the buildups? Until the late 1970s the answers seem fairly transparent. The high base level of spending resulted from the Cold War ideology of global anti-communism and the foreign policy doctrines and military commitments that flowed from that ideology. The spending deviations were associated with the extraordinary costs of engagement in two major shooting wars in Asia.[29] The Carter-Reagan buildup is a different matter. Set in motion by a unique combination of external events, astute partisan political action and information management, kept in motion by executive determination and bureaucratic tenacity, it bore little resemblance to the two preceding buildups.[30]

During the “normal” years of the post-Korean War period, 1955-1965 and the post-Vietnam War period, 1972-1978, when neither substantial mobilization nor demobilization was occurring, real defense spending fluctuated within a range of $144-166 billion. This contrasted with the $48-60 billion range of the years 1948-1950. One may conclude that the establishment of the full-fledged Cold War regime caused real defense spending almost to treble. Shooting wars entailed marginal expenditures of another $20-60 billion per year. Even without the periodic buildups, the “normal” expense of a military establishment requiring $150 billion per year for forty years would have cumulated to $6 trillion (1982 dollars). This staggering sum is equivalent to the entire GNP of the United States in the two-year period 1977-l978.

From 1948 to the late 1960s the dominant Cold War ideology and a bipartisan consensus on defense and foreign policy, focused on global containment of Communism and deterrence of a Soviet attack on Western Europe or the United States, gave support to the unprecedented allocation of resources to the “peacetime” military establishment.[31] Having weakened somewhat under the strains of the Vietnam War controversy and its political aftermath, both the ideology and the consensus persisted, subject to a good deal of fraternal squabbling, notably within Congress.[32] President Reagan’s rhetorical hostility toward the Soviet Union’s “evil empire” and the generally hawkish stance of his administration, especially during Reagan’s first term, gave renewed luster to the tarnished Cold War ideology. Despite the public’s waning enthusiasm for foreign military adventures after the near-hysteria of 1980, events such as the U.S. invasion of Grenada and the Soviet downing of Korean Airlines flight 007 in 1983 were “carefully managed and interpreted by the [Reagan] administration” and “proved crucial, at least long enough to save the weapons buildup.”[33]

The ideological milieu was important, indeed essential, in maintaining high levels of resource allocation to defense, but it was not sufficient. Ordinary citizens, almost none of whom had any direct contact with conditions or evidence bearing on national security, easily came to suspect that the nation’s security did not really require such vast expenditures and that military interests, especially the uniformed services and the big weapons contractors, were using bogus threats as a pretext for siphoning off the taxpayers’ money. Countless political cartoons, featuring bloated generals bedecked with rows of medals, promoted precisely

such an attitude. Citizens did not need to be natural cynics. The problem of creeping skepticism was inherent in the remoteness of the subject from their immediate experience. In addition, as Huntington remarked, "The longer a given level of military force is apparently adequate for deterrence, the greater is the temptation to assume that a slightly lower level might be equally adequate."[34]

Frequent newspaper and television reports of waste, fraud, mismanagement, and bribery fostered the public's tendency, absent a crisis, to doubt what the defense authorities said. Popular books explained how the military-industrial-congressional complex formed an "iron triangle," exploiting the taxpayers, distorting defense policies, and blocking progress toward multilateral arms reductions.[35] As Gordon Adams explained, because no one knew the production function for national security, it was "difficult to correlate military expenditure levels to distinct improvements in national security. Citizens [could] only spend and hope." But "the indeterminate nature of the need to spend," along with the underlying Cold War ideology, created a potential for political leaders periodically to arouse the slumbering apprehensions of the public.[36]

The tendency of chronic background threat to lose its efficacy in supporting high levels of military spending could be offset by episodic crises. In a perceived crisis, public opinion became volatile. Many people suspended their reason, critical faculties, and long-term judgments, reacting emotionally and with heightened deference to political leaders.[37] As Senator Arthur Vandenberg observed when Truman was first attempting to persuade the public to support a policy of containment in 1947, gaining such support required that national leaders "scare hell out of the American people."[38] Sometimes the outside world presented an inviting opportunity to take advantage of a crisis, as when the North Koreans crossed the 38th parallel in 1950 or when the Soviets invaded Afghanistan at the end of 1979. But usually the world did not supply such clear-cut cases, and the national security managers had to take matters into their own hands.

During the Cold War the authorities alerted the public to a series of ominous "gaps."[39] Just after World War II, U.S. leaders exaggerated Soviet force levels and offensive capabilities. Of the fearsome 175 Soviet divisions, a third were undermanned and another third were ill-equipped militia.[40] Then came a bomber gap in the mid-1950s and a missile gap between 1958 and 1961, followed within a few years by an antimissile gap and a first-strike missile gap. All were revealed in due course to have been false alarms. Meanwhile the American people received an almost wholly fictitious account of an incident in the Gulf of Tonkin in 1964, which stampeded Congress into giving its blessing to what soon became a major war.[41] Subsequent gaps were alleged with regard to bombers (again), thermonuclear megatonnage, antisubmarine capabilities, and missile throw weights. An influential group of Republican hawks, calling themselves the Committee on the Present Danger, declared the 1970s to have been a "decade of neglect" that opened a dangerous "window of vulnerability." According to Secretary of Defense Caspar Weinberger, speaking in 1987, an "enormous gap" had "emerged since 1970 between the level of Soviet defense activities and our own," though fortunately the Reagan administration had "managed to close much of this gap."[42] Still, as the Cold War passed through its waning years, government spokemen were warning that the country faced a Star Wars gap that could be closed only by spending vast amounts of money.[43]

Although not every gap scare led directly to a corresponding U.S. response, the drumbeat succession of such episodes helped to sustain an atmosphere of tension, distrust, and insecurity that fostered the maintenance of an enormous ongoing arms program. Claims about gaps placed the burden of argument on relatively ill-informed opponents of military spending. Among the general public, mood substituted for information—a situation that well suited the purposes of the defense establishment.

Throughout the Cold War the national security elite—the president, the National Security Council (NSC), the Joint Chiefs of Staff and a few other military leaders, a few congressional leaders, high officials of the State Department, the Defense Department, and the Central Intelligence Agency (CIA), plus the heads of other intelligence organizations, various aides, arms contractors, scientists, and consultants, altogether a small group of persons among whom only the president and the vice-president held elective office—possessed a close hold on critical defense-related information. This situation sprang from origins in the National Security Act of 1947, which created the NSC and the CIA and "set in motion a cult of secrecy, a far more pervasive system of classifying information than had ever existed previously, and a growing executive determination to withhold sensitive information

from the public and from Congress."[44] An NSC member once declared, "Policy decisions of the National Security Council are not a fit subject for public discussion."[45]

The need for a certain amount of secrecy was obvious to everybody, but many people suspected that, as Sidney Lens observed, "mostly, secrecy [was] used against the people of the United States."[46] Not only strategic decision making was kept secret. A substantial portion of the spending for weapons development, intelligence gathering, and covert operations was financed from a "black budget" that by the late 1980s amounted to more than $30 billion per year, entirely shielded from congressional and public debate. As Harvey Sapolsky noted, "what no one knows, no one can criticize."[47]

In view of their exclusive possession of critical information and their perceived need to "sell" their preferred policies to the public, the national security elite did not shrink from dissembling. As J. Russel Wiggins put it, "Our government repeatedly resorts to lies in crises, where lies seem to serve its interests best."[48] This easily documented observation, which may shock some citizens even in our own, less gullible times, does not surprise political scientists. Lance Bennett has observed that "Information about public issues is an inherently political commodity. It is concealed, revealed, leaked, released, classified, declassified, jargonized, simplified, and packaged symbolically according to the political interests of those ubiquitous 'informed sources' who have a stake in the outcome of the issue in question."[49] Manipulation of information is central to what modern governing elites do. Senator Daniel Patrick Moynihan, himself no stranger to the inner sanctums of government power, observed that "knowledge is power, and the ability to define what others take to be knowledge is the greatest power."[50]

The national security elite's close hold on critical information would not have been particularly noteworthy if the interests of the elite and the interests of the public had corresponded closely. But nothing in the workings of U.S. political institutions ensured that a close correspondence would always exist, and abundant historical evidence shows that it frequently did not. Plainly, leaders of the defense elite had interests of their own—personal, political, institutional, material, and ideological—interests that they could serve through strategic retention, dissemination, or misrepresentation of the information to which they alone had access.[51]

They did not hesitate to exploit the advantages of their privileged access to information. The Iran-Contra affair and the Pentagon briberies and influence-peddling brought to light during the late 1980s were only the latest of a long series of actions shielded by self-serving mendacity. "The entire sequence of decisions concerning the production and use of atomic weaponry," for example, took place "without any genuine public debate, and the facts needed to engage in that debate intelligently [were] officially hidden, distorted, and even lied about."[52] Beginning in World War II the government operated a complex of facilities for manufacturing nuclear materials and weapons. These operations caused a variety of radioactive and other toxic contaminations of the surrounding air, water, and soil, yet the managers of the facilities repeatedly misrepresented and lied about the hazards to citizens living nearby. In at least one case of huge significance—the so-called "green run" at Hanford, Washington, in 1949—the operators deliberately released a large quantity of nuclear materials, including some 7,780 curies of iodine 131, onto the unwitting residents of the surrounding area as part of an experiment.[53]

Nothing in what I have just said means that the national security elite could do anything they wished. If they could have, retrenchments of the military establishment would not have occurred after the buildups. Certainly the steep decline of 1968-1976, especially its later phase, which defense interests stoutly opposed, would not have been so steep. The fact that the allocation of resources to defense did sometimes fall, and fall substantially, refutes radical arguments that allege the exercise of hegemony by the national security establishment.[54] Although one must appreciate the tremendous political resources possessed by the defense elite, it is possible—and not unusual—to overestimate its strength. It lost some political battles, too. That is why during the late 1980s, notwithstanding the preceding buildup, the defense share of GNP never exceeded 7 percent (Figure 2 above). Defense interests had the political savvy to appreciate that proposals or actions widely perceived as excessively grasping and strategically unjustified would be imprudent and counterproductive. More important, however, were the domestic factors that constrained the defense managers in spite of their unique control of information and their consequent ability to mold, rather than respond to, public opinion.[55]

The biggest problem for defense authorities intent on exploiting ideology, controlling information, and molding public opinion arose from that proverbially inevitable duo: death and taxes. Those were the most evident forms taken by the costs of extensive commitments of resources to military purposes. Of the two, death was the more important. John Mueller fitted statistical models to public opinion data gathered during the Korean and Vietnam wars and found that, in both cases, "every time American casualties increased by a factor of 10, support for the war dropped by about 15 percentage points."[56] Robert Smith reported public opinion data showing that "complaints about taxes were high during the two limited wars and increased as the wars progressed."[57]

As Smith's data illustrate, opportunity costs constantly constrained military activities throughout the Cold War. In the crisis of 1948 and immediately afterward Truman resisted recommendations for a huge increase in military spending facilitated by either increasing taxes or imposing economic controls because "he was convinced that these courses were not economically or politically feasible."[58] In the wake of the Soviets' Sputnik success, Eisenhower opposed the Gaither Committee's recommendation for a big buildup because he had "a nagging fear that the American people would balk at paying the bill."[59] Given this abiding popular resistance, it was only to be expected that, as Hugh Mosley noted, the Johnson administration "was reluctant to resort to increased taxes to finance the [Vietnam] war for fear of losing public support for its policy of military escalation."[60] Nixon was said to have "realized that for economic reasons (the war was simply costing too much) and for the sake of domestic peace and tranquility he had to cut back on the American commitment to Vietnam"; the retrenchment was "forced on [him] by public opinion."[61] Jacques Gansler observed that during the 1970s "the will of the people, who were fed up with the war in Vietnam, was to devote all available resources toward improving the peacetime life of the nation."[62] Yet at the same time rising real marginal tax rates inspired tax revolts, limiting the capacity of governments to supply more nonmilitary goods. Something had to give. Of the political factions struggling over the three grand categories of GNP, the pro-military faction proved the weakest, at least until 1979.

When the national security elite lacked persuasive rationales to present to the public, they could only draw on the pool of patriotism. But that was not a bottomless reservoir, and without replenishment from sources that the public could understand and support, it tended to run dry.[63] When it did, public opinion could not be effectively controlled by the authorities. As the opinion balance became strongly negative, it worked its way through political processes, reaching both Congress and the administration, to affect the allocation of resources to the military.[64]

Figure 6, which is based on 193 comparable nationally representative surveys in which people were asked whether they would prefer that defense spending be increased, decreased, or kept the same, shows a summary variable, opinion balance, defined as the percentage of respondents wanting an increase minus the percentage wanting a decrease. Despite the gaps in the record, the figure shows clearly the positive (but sometimes just barely positive) support for increased spending in the 1950s and 1960s (through 1967), the strong preference for reduced spending at least from 1968 until the late 1970s, the strong support for increased spending from 1979 through 1981, and the substantial balance in favor of reduced spending thereafter.[65]

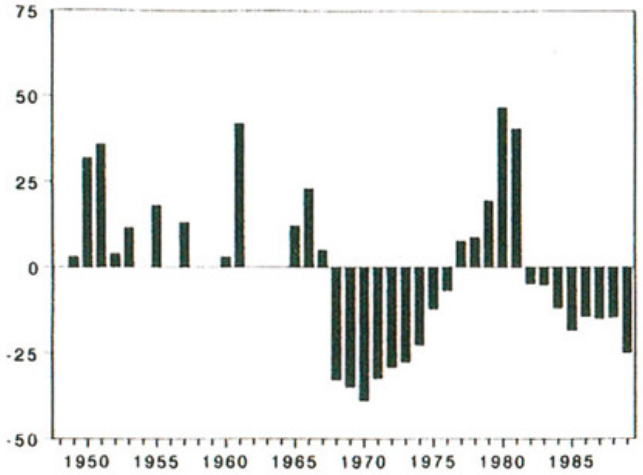

FIG. 6. Public opinion balance on defense spending, 1949–1989.

Political histories also provide evidence that the wartime administrations reacted, with variable lags, to swings of public opinion. The Korean War made President Truman increasingly unpopular as it dragged on.[66] Eisenhower gained election to the presidency in 1952 largely on the strength of his promise to end the war, a promise he hastened to keep.[67] Johnson declined to seek reelection in 1968 because of mounting opposition to his war policy.[68] The Nixon administration devoted itself to winding down American participation in the fighting, ending the draft, and eventually withdrawing all U.S. forces from Vietnam, for which it was rewarded with a landslide reelection in 1972.[69] At the very peak of the Reagan buildup, Secretary of Defense Caspar Weinberger complained that "new weapons can be developed by our adversaries . . . much more rapidly because [in the USSR] there are no funding restraints imposed by public opinion."[70] Ultimately, not even the national security elite could control public opinion, which responded to the heightened opportunity costs of defense programs and actual warfare just as a rational consumer would move toward the northwest along a demand curve.[71]

CONCLUSION

The Cold War era witnessed a new relation of military activity to the political economy of the United States. Before World War II the allocation of resources to military purposes remained at token levels, typically no more than one percent of GNP, except during actual warfare, which occurred infrequently. Wartime and peacetime were distinct, and during peacetime—that is, nearly all the time—the societal opportunity cost of "guns" was nearly nil. The old regime ended in 1939. The massive mobilization of the early 1940s drove the military share of GNP to more than 41 percent at its peak in 1943-44.[72] Despite an enormous demobilization after 1944, the military sector in 1947, at the postwar trough, still accounted for 4.3 percent of GNP, three times the 1939 share. Following the Korean War, military purchases reached an unprecedented level for "peacetime" and, while fluctuating, remained at or above this elevated level ever afterward. During the period 1948-1989 military purchases cumulated to more than $7 trillion (1982 dollars), averaging about $168 billion annually, or 7.5 percent of GNP. The trend tilted slightly upward for absolute real spending, slightly downward for spending as a share of GNP. Increases in the military share of GNP during the Korean and Vietnam wars came entirely at the expense of the private share. The government nonmilitary share increased during the first two post-World War II military buildups and remained approximately constant during the third. Examining GNP*, defined as GNP minus all defense spending, one finds that this measure of national product often moved differently from conventional GNP. The largest discrepancies occurred during the early 1950s. These discrepancies suggest the desirability of reassessing the business cycle in its relation to economic well-being during those years. After the mid-1950s the difference between the growth rates of GNP and GNP* tended to diminish, becoming nearly negligible during the 1980s.

The high base level of defense spending during the Cold War resulted from the dominant ideology of global anti-communism, which called forth various foreign policy doctrines (e.g., the Truman Doctrine, massive retaliation, the Reagan Doctrine) and military commitments (e.g., NATO, bilateral defense treaties, U.S. military "advisers" in Latin America). The ideology alone,

however, was an insufficient prop, and episodic crises played an essential part in maintaining public support for vast military expenditures. The national security elite warned of one "gap" after another, most of which turned out to be exaggerated or nonexistent. Given the secrecy in which much defense-related information was held, it was inevitable that the national security elite would use its unique access to information to promote its own interests, which were sometimes in conflict with public preferences. There were limits, however, and in the political struggles military interests sometimes lost. The authorities could not always effectively mislead the citizenry, especially when many deaths and increasing taxes (including unanticipated inflation) were involved. But the constraints on policymakers, being subject to informational and ideological displacement and responsive to perceived crisis, were themselves elastic and manipulable.

Footnotes:

For comments on previous drafts and presentations I am grateful to Lee Alston, Ted Carpenter, Price Fishback, Chris Grandy, Stan Lebergott, Dwight Lee, Dennis Mueller, Hugh Rockoff, Murray Rothbard, Bruce Russett, Andy Rutten, Gordon Tullock, and especially Charlotte Twight. I also thank the participants in a Peace Studies Program seminar at Cornell University, economic history workshops at Northwestern University and the University of Illinois, and a session at the meetings of the Public Choice Society.

1. MacArthur, *A Soldier Speaks*, p. 333.

2. On my own bookshelf I have ten textbooks on American economic history published between 1972 and 1990. Of these, none has a chapter or even a section on the Cold War economy as such, though one has two pages devoted to "Planning and Stability: The Role of Military Spending" and another has a two-paragraph section on "The Role of Military Spending" in relation to the postwar growth of government. Only one has an entry for "Cold War" in the index, but the reference is to a merely incidental mention of the Cold War. Most make only passing comments on the Korean War and the Vietnam War and no remarks at all on military activities or expenditures during the "peacetime" years since World War II.

3. I am not concerned in this paper with how the opportunity costs of changes in the military part of GNP were divided between consumption and investment. For a recent analysis of this question, see Edelstein, "What Price Cold War?" Edelstein's conclusion that private consumption rather than private investment absorbed the full cost of additional defense spending in the period 1946-1979 is consistent with the conclusion of Weidenbaum, *Small Wars, Big Defense*, p. 115, and sources cited there. Because of the heavy debt financing that accompanied the Reagan buildup in the 1980s, I suspect that some crowding out of investment occurred then even if not earlier.

4. Higgs, "Wartime Prosperity?"; Higgs, *Crisis and Leviathan*, pp. 220-36 and sources cited there.

5. Page and Shapiro, *The Rational Public*, p. 332.

6. The source of all basic data for GNP, its components, and the implicit GNP deflator, unless otherwise indicated, is U.S. Council of Economic Advisers, *Annual Report, 1991*, pp. 286-290. Notice that here and hereafter in this paper national defense spending is defined rather narrowly, as in the national income and product accounts. Other analysts have included some or all of the government's spending for space exploration, research, education, and veterans' services as well as the costs of the Department of State and foreign aid. For some purposes it is appropriate to add some or all of these items. Because of the uncertainty with respect to how much of them ought to be considered "national defense" expenditures and because the narrower definition used here allows one to make a better grounded, more conservative case, these more problematical items are left out of the present analysis. For the same reason, I make no adjustment for the fact that a substantial part of military manpower was conscripted between 1948 and 1972. Obviously, conscription gives rise to an accounting understatement of the opportunity costs of military activities, but making a reliable estimate of the amount of the understatement would require research far beyond the scope of the present paper.

7. Huntington, *The Common Defense*, pp. 33-39.

8. Isaacson and Thomas, *The Wise Men*, pp. 393-394. See also Kolodziej, *The Uncommon Defense and Congress*, pp. 35-36, 67-68; Ambrose, *Rise to Globalism*, pp. 71, 79-82, 93-94.

9. Huntington, *The Soldier and the State*, p. 425; Kolodziej, *The Uncommon Defense and Congress*, pp. 74-81; Mosley, *The Arms Race*, p. 7.

10. Donovan, *Conflict and Crisis*, pp. 357-361; Ambrose, *Rise to Globalism*, pp. 95-97; Kolodziej, *The Uncommon Defense and Congress*, p. 72; Page and Shapiro, *The Rational Public*, pp. 200-201, 206-209. Page and Shapiro (p. 209) conclude that "during the early Cold War [in the late 1940s], U.S. public opinion can be said, to a significant extent, to have been manipulated"—that is, deliberately misled by the authorities. This is not to say, of course, that the events propelling the United States into the Cold War were completely concocted—far from it—but then, as often thereafter, the foreign policy decisionmakers, perceiving a need to respond to threats, found it useful to exaggerate the threats when dealing with the public and Congress.

11. U.S. Bureau of the Census, *Historical Statistics*, p. 1114.

12. Huntington, *The Soldier and the State*, p. 384; Huntington, *The Common Defense*, pp. 47-53; Mosley, *The Arms Race*, pp. 7-12; Ambrose, *Rise to Globalism*, pp. 113-115. According to Morton Halperin, the authors of NSC-68 "made a deliberate decision to exaggerate possible dangers." Halperin as quoted by Schneider, "Causal Factors in Variations," p. 67. At the same time they steered clear of revealing how great the costs would be. Secretary of State Dean Acheson instructed Paul Nitze, the principal author of NSC-68, not to mention costs in the report. Weiner, *Blank Check*, p. 30.

13. Isaacson and Thomas, *The Wise Men*, pp. 504 (Acheson quote), 513. See also Huntington, *The Soldier and the State*, pp. 364, 382-384, 445-446; Huntington, *The Common Defense*, pp. 53-64; Mosley, *The Arms Race*, pp. 11, 13, 173; Ambrose, *Rise to Globalism*, pp. 113-131; Kolodziej, *The Uncommon Defense and Congress*, pp. 124-156; Page and Shapiro, *The Rational Public*, pp. 209-214.

14. *The Common Defense*, p. 201.

15. Here I part company with, among others, Stubbing, *The Defense Game*, pp. 14, 97. But Stubbing's own account seems inconsistent; compare his pp. 299, 327-330. See also Mosley, *The Arms Race*, pp. 174-177.

16. Korb, *The Fall and Rise of the Pentagon*, pp. 53-54, 62-64; Gansler, *The Defense Industry*, pp. 21-22, 26.

17. Stubbing, *The Defense Game*, pp. 297, 310; Ambrose, *Rise to Globalism*, pp. 234-235, 242-254.

18. Mosley, *The Arms Race*, p. 29. Economic statisticians have identified serious shortcomings in the construction of deflators for defense purchases. Statisticians at the Commerce Department's Bureau of Economic Analysis, who created such an index at the request of the Defense Department, have themselves stated that the index is inappropriate for calculating reliable weapons-specific price changes. Existing indexes do not deal satisfactorily with quality changes in equipment, among other things. See Weida and Gertscher, *The Political Economy of National Defense*, p. 63, and Smith, "Models of Military Expenditure," pp. 350-351. Ziemer and Galbraith's "Deflation of Defense Purchases" offers a more complacent view (the authors are employed by the Bureau of Economic Analysis), but see the comment by Manser that follows their paper.

19. For a discussion of the various sources and measures of military spending, see Mosley, *The Arms Race*, pp. 17-44.

20. Of course, the more characteristic type of spending of the welfare state, government transfer payments, increased even more enormously. But because these payments are not for immediate purchase of currently produced goods and services—that is, they are not components of GNP—they lie outside the scope of the present analysis. My analysis here and in the following three paragraphs disagrees fundamentally with the interpretation of similar data by Du Boff, "What Military Spending Really Costs," pp. 6-7.

21. Spindler, “The Overstated Economy.”

22. Dumas, “Economic Power, Military Power, and National Security.”

23. Weidenbaum, *Small Wars, Big Defense*, pp. 124-125; Weida and Gertcher, *Political Economy of National Defense*, pp. 46-50, 54, 164-165, 202-203.

24. Stanley Lebergott and Hugh Rockoff reminded me that many privately purchased goods also ought to be viewed as intermediate. Indeed the approaches to consumer theory pioneered by Kevin Lancaster and Gary Becker proceed from precisely this observation. One can grant this objection and still insist that national security differs so greatly from the typical private good in this respect as to present a qualitatively different case.

25. Spindler, “The Overstated Economy.”

26. Higgs, “Hard Coals Make Bad Law”; Higgs, “Beware the Pork-Hawk”; Twight, “Department of Defense Attempts to Close Military Bases.”

27. Ultimately Kuznets seems to have concluded that GNP even for a period that includes World War II should be measured by a “peacetime concept.” For a discussion of Kuznets’s arguments, see Higgs, “War Prosperity?”

28. As Hugh Rockoff has told me, it depends on the question. For example, one might want to use standard GNP rather than GNP* in estimating the demand for money.

29. Ostrom, “A Reactive Linkage Model,” p. 955; Domke, Eichenberg, and Kelleher, “The Illusion of Choice,” pp. 30-31; Ostrom and Marra, “U.S. Defense Spending,” pp. 824-839. Schneider, “Causal Factors in Variations,” assesses several other factors as well.

30. Informative analyses of the Carter-Reagan buildup include Korb, *The Fall and Rise of the Pentagon*, pp. 151-164; Stubbing, *The Defense Game*, pp. 12-30; Mosley, *The Arms Race*, pp. 145-160; Ostrom and Marra, “U.S. Defense Spending,” pp. 819-842; Kaufmann, *A Reasonable Defense*; Luttwak, *The Pentagon and the Art of War*; and Page and Shapiro, *The Rational Public*, pp. 264-271, 335, 368. The external events included (what was perceived to be) a rapid Soviet arms buildup, the Iranian hostage-taking at the U.S. embassy, and the Soviet invasion of Afghanistan. The rest of the momentum derived from the Reagan team and its political supporters, before as well as after Reagan took office.

31. Huntington, *The Common Defense*; Liggio, “American Foreign Policy”; Neu, “The Rise of the National Security Bureaucracy,” pp. 91-92, 100-101; Rockman, “Mobilizing Political Support,” pp. 18, 28-29.

32. All sides agree. For testimony from a variety of ideological perspectives, see Isaacson and Thomas, *The Wise Men*, pp. 369, 725, and passim; Ambrose, *Rise to Globalism*, pp. 221-222 and passim; Rosenberg, “Arms and the American Way”; Sanders, *The Politics of Defense Analysis*, pp. 176-177, 186-187, 201-202; U.S. Senate, Staff of the Committee on Armed Services, *Defense Organization*, p. 573; Lens, *Permanent War*, pp. 43-44; Cypher, “Ideological Hegemony and Modern Militarism,” pp. 10-15; Navarro, *The Policy Game*, pp. 259-262, 273-275; Weinberger, *Annual Report, 1988*, pp. 15, 41-50.

33. Page and Shapiro, *The Rational Public*, p. 273.

34. Huntington, *The Common Defense*, p. 205.

35. Prominent examples include Mills, *The Power Elite*; Fitzgerald, *The High Priests of Waste*; Adams, *The Politics of Defense Contracting*; and Lens, *Permanent War*.

36. Adams, “Disarming the Military Subgovernment,” p. 467. See also Mancur Olson as quoted in Mosley, *The Arms Race*, p. 19; Weida and Gertcher, *Political Economy of National Defense*, pp. 50, 54, 78. From an analysis of public opinion data for the six

years 1973-78, a period lacking any great foreign-policy crisis, Kriesberg and Klein concluded that "a latent readiness to support defense spending . . . can be evoked and sustained by established authority figures" and that, although instrumental thinking is sometimes important, "ideology also contributes significantly to explaining variations in attitudes about defense spending." See Kriesberg and Klein, "Changes in Public Support," pp. 106-7.

37. Huntington, *The Common Defense*, pp. 202, 214-215; Bennett, *Public Opinion*, pp. 113-117, 216-219; Higgs, *Crisis and Leviathan*, pp. 17-18, 62-67, and passim; Rockman, "Mobilizing Political Support," pp. 21-27, 32, 36-37. Page and Shapiro (*The Rational Public*, p. 222) note that "abrupt opinion changes occur most often in time of war or international turmoil, not in times of peace."

38. Ambrose, *Rise to Globalism*, p. 87.

39. Huntington described U.S. military forecasts between 1946 and 1960 as "a series of prophecies of disaster which never materialized." *Common Defense*, pp. 428-429.

40. Kolodziej, *The Uncommon Defense and Congress*, p. 77; Isaacson and Thomas, *The Wise Men*, p. 503.

41. Ambrose, *Rise to Globalism*, pp. 212-213; Lens, *Permanent War*, pp. 73-74, 123; Kwitney, *Endless Enemies*, pp. 357-359. Page and Shapiro, *The Rational Public*, p. 227, call the Tonkin Gulf incident "a classic case of opinion manipulation." They note (p. 228) that "the administration had made contingency plans for striking at North Vietnam and had prepared a draft congressional resolution for introduction at the appropriate moment."

42. Weinberger, *Annual Report, 1988*, p. 17. Page and Shapiro (*The Rational Public*, p. 269) observe that the Reagan administration "misrepresented the arms balance long enough to take credit for 'restoring' U.S. strength."

43. On the gaps, compare Navarro, *The Policy Game*, p. 240; Stubbing, *The Defense Game*, pp. xiii, 14-25; Lens, *Permanent War*, pp. 170-171; Huntington, *The Common Defense*, pp. 428-429 and passim; Ambrose, *Rise to Globalism*, p. 168; and Weiner, *Blank Check*, pp. 19-45.

44. Carpenter, "Global Interventionism," p. 6. See also Huntington, *The Common Defense*, pp. 184-188; Mills, *The Power Elite*, pp. 293-294, 355; Lens, *Permanent War*, p. 38; Sanders, *The Politics of Defense Analysis*, pp. 206-207; Adams, "Disarming the Military Subgovernment," pp. 467-474, 486; Adams, *The Politics of Defense Contracting*, pp. 95-96; Stubbing, *The Defense Game*, pp. 56, 110; Neu, "The Rise of the National Security Bureaucracy," pp. 89-90, 98-100.

45. Huntington, *The Common Defense*, p. 183.

46. Lens, *Permanent War*, p. 44. For an insightful analysis of national security policymaking that proceeds from an explicit recognition of the distinction between the nation and the government that rules the nation, see Hummel and Lavoie, "National Defense and the Public-Goods Problem."

47. Sapolsky, "Equipping the Armed Forces," p. 122. On the black budget, see Weiner, Blank Check.

48. Wiggins as quoted by Lens, *Permanent War*, p. 119; see also pp. 122, 130, 168, 172. For a well-documented survey of the landmark foreign- and defense-policy events involving what they call the manipulation (deliberate misleading) of public opinion by government leaders during the past fifty-five years, see Page and Shapiro, *The Rational Public*, pp. 172-284, 367-372.

49. Bennett, *Public Opinion*, p. 311. See also "Lies: The Government and the Press," in Kwitney, *Endless Enemies*, pp. 355-378.

50. Moynihan as quoted by Stubbing, *Defense Game*, p. 5. See also Mills, *The Power Elite*, pp. 220, 222.

51. Friendly critics have pointed out to me that defense policy is not especially outstanding in these regards: any kind of political interest group, whether inside or outside the government, tries to control or slant information in the service of its policy ends. The

distinction I insist upon, however, arises from the unique capacity of defense policymakers to determine what information others can acquire about specific facts and to distort the public's understanding of the context within which the policy will be implemented. In domestic policy, the closeness of the policy context to a variety of observers, some of whom are partisan opponents of the officials in power, makes information distortion and management much less rewarding for the authorities.

52. Mills, *The Power Elite*, p. 355. See also Huntington, *The Soldier and the State*, pp. 382-384; Huntington, *The Common Defense*, pp. 113-114, 303, 305; and Weiner, *Blank Check*, pp. 19-28.

53. Marshall, "The Buried Cost of the Savannah River Plant," pp. 613-615; Steele, "Hanford's Bitter Legacy," pp. 17-23; Stenehjem, "Indecent Exposure," pp. 6-22. On a closely related subject, see Shulman, *The Threat at Home*.

54. For arguments that strongly suggest, if they do not explicitly allege, that such hegemony was exercised, see Lens, *Permanent War*; Adams, "Disarming the Military Subgovernment"; and Cypher, "Ideological Hegemony and Modern Militarism."

55. On the resistance of public opinion to official manipulation, see Page and Shapiro, *The Rational Public*, pp. 274-281. These researchers observe (p. 279) that "when information is available that can support critical analyses, especially when elites differ, opinion manipulation is very difficult."

56. Mueller, *War, Presidents and Public Opinion*, pp. 60-61.

57. Smith, "Disaffection, Delegitimation, and Consequences," p. 250. See also Kolodziej, *The Uncommon Defense and Congress*, pp. 156-157, and Page and Shapiro, *The Rational Public*, pp. 213, 237-242, 333-334.

58. Kolodziej, *The Uncommon Defense and Congress*, pp. 91, 119-120.

59. Eisenhower as quoted by Huntington, *The Common Defense*, p. 113. See also Neu, "The Rise of the National Security Bureaucracy," p. 89.

60. Mosley, *The Arms Race*, p. 153. See also Matusow, *The Unraveling of America*, pp. 153-179.

61. Ambrose, *Rise to Globalism*, pp. 242-243.

62. Gansler, *The Defense Industry*, p. 22. See also Neu, "The Rise of the National Security Bureaucracy," pp. 100-104.

63. Rosecrance, *The Rise of the Trading State*, pp. 38, 131, 158; Higgs, *Crisis and Leviathan*, pp. 64-65; Ambrose, *Rise to Globalism*, pp. 249-250.

64. Ostrom, "A Reactive Linkage Model," p. 954; Ostrom and Marra, "U.S. Defense Spending," pp. 830-839; Russett, *Controlling the Sword*, pp. 98-100. More definitive documentation and analysis of the asserted relation between public opinion and defense spending appears in the paper by Robert Higgs and Anthony Kilduff, "Public Opinion and U.S. Defense Spending."

65. Figure 6 is based on opinion survey data underlying Higgs and Kilduff, "Public Opinion." While the figure indicates that public opinion tended to turn against support for further military buildup as each buildup proceeded, it also shows that the three highest peaks of pro-military opinion all occurred in conjunction with a crisis: the North Korean and Chinese invasions in Korea in 1950, the Berlin crisis of 1961, and the aftermath of the Iranian hostage-taking and the Soviet invasion of Afghanistan in November and December 1979.

66. Mueller, *War, Presidents, and Public Opinion*, p. 199; Rees, *Korea*, pp. 386-87.

67. Huntington, *The Soldier and the State*, p. 391; Cotton, "War and American Democracy," p. 630.

68. Berman, *Lyndon Johnson's War*, pp. 176-203; Cotton, "War and American Democracy," pp. 630-1; Russett and Graham, "Public Opinion and National Security Policy," p. 252; Matusow, *The Unraveling of America*, pp. 376-94.

69. Cotton, "War and American Democracy," pp. 631-2.

70. Weinberger, *Annual Report, 1988*, p. 16.

71. For an analytical survey of the extensive literature on the relation of public opinion to defense policy, see Russett and Graham, "Public Opinion and National Security Policy." On pp. 243 and 245 the authors conclude that "governments lose popularity directly in proportion to the length and cost (in blood and money) of the war." Public opinion unquestionably affects policy, but the relation is complex. "Leaders in a real sense interact with public opinion, both responding to it and manipulating it." See also Russett, *Controlling the Sword*, pp. 87-118. From a statistical and historical study, Cotton ("War and American Democracy," p. 632) concludes: "Over the past century war has had a significant, detrimental, and independent [electoral] effect on elected leaders of the 'war party.' The degree of the effect seems to have depended on the level of commitment of the nation's resources to the war effort." Finally, see the extensive historical analysis of public opinion in relation to foreign and defense policy by Page and Shapiro, *The Rational Public*, pp. 172-284 and passim.

72. For reasons discussed by Higgs, "Wartime Prosperity?", the 41 percent figure can be taken only as suggestive. No genuinely meaningful national product accounting is possible in the institutional context of a command economy, which is what the United States had from 1942 through 1945.

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